

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (previously presented): A nutritional or pharmaceutical composition comprising: a)-a protein fraction containing L-serine selected from the group consisting of L-serine, protein or peptides; and b)-an energy metabolism precursor selected from glycocyamine (GA), equivalents thereof, and mixtures thereof, wherein the composition is free of glycine or if glycine is present within the composition, the weight ratio of L-serine to glycine after hydrolysis of the composition is more than 2.7:1.

Claims 2-17 (canceled).

18. (previously presented): The composition according to claim 1, wherein the molar ratio of the energy metabolism precursor and the excess of L-serine versus glycine is in the range of 0.1:1 to 10:1.

19. (previously presented): The composition according to claim 1, wherein the composition further comprises creatine.

20. (previously presented): The composition according to claim 3, wherein the energy metabolism precursor and creatine are present within the composition in a weight ratio of at least 0.2:5.

21. (previously presented): The composition according to claim 1, wherein the composition further comprises vitamins selected from the group consisting of vitamin B6, vitamin B12 and folic acid.

22. (previously presented): The composition according to claim 1, wherein the composition further comprises a digestible food grade carbohydrate.

23. (previously presented): The composition according to claim 1, wherein the composition further comprises an aldehyde.

24. (previously presented): The composition according to claim 1, wherein the composition further comprises a mineral selected from the group consisting of magnesium and zinc.

25. (previously presented): The composition according to claim 1, wherein the composition is in a form selected from

liquid form, powder form, emulsion form, suspension form, gel form, bar form, cookies, and sweets.

26. (previously presented): A method for increasing the creatine response within mammalian muscle and methylation reaction capacity in a mammal in need thereof, comprising administering to said mammal an effective amount of the composition according to claim 1.

27. (currently amended): The method according to claim ~~11~~ 26, wherein the energy metabolism precursor is administered at a daily dosage of at least 0.2 g up to 4 g.

28. (currently amended): The method according to claim ~~11~~ 26, wherein the composition is a nutritional or pharmaceutical supplement and wherein the protein fraction containing L-serine is administered at a daily dosage of at least 1 g.

29. (currently amended): The method according to claim ~~11~~ 26, wherein the composition is a complete nutritional or pharmaceutical composition and wherein the protein fraction containing L-serine is administered at a daily dosage of at least 4.8 g.

30. (currently amended): The method according to claim ~~11~~
26, wherein the mammal is an athlete.

31. (currently amended): The method according to claim ~~11~~
26, wherein the mammal is a disease-affected person, a
vegetarian person, or an elderly person.

32. (currently amended): The method according to claim ~~11~~
26 for the stimulation and/or increase of anabolic processes
and/or the providing of an increase of the lean body mass,
and/or prevention and/or treatment of muscle catabolism or even
cachexia and/or for the improvement of the energy status of
tissues and cells.

33. (currently amended): The method according to claim ~~11~~
26, for the prevention and/or treatment of disorders selected
from the group consisting of cancer, neurological disorders,
migraine, allergy, insulin resistance which improves glucose
tolerance and decreases side effects of diabetes type II,
cardiovascular and cerebrovascular disorders,
hypercholesterolaemia, hypertension, subfertility, uncontrolled
inflammation processes, pneumonia, hearing loss, wound healing,
gut barrier function and sepsis.